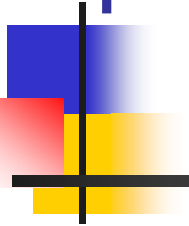


# Context is the Key: The Use of Strategically Created Storybooks to Improve Language



*Jacquelyn Renee Moore, Ph.D.  
Montgomery County Public  
Schools,  
Montgomery County, Maryland*

Closing the Gap  
Minneapolis, Minnesota  
October 19, 2007





# EVIDENCE to SUPPORT PRACTICE: SS-SIM

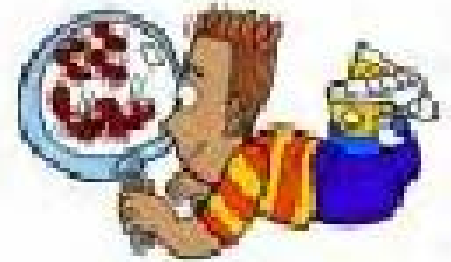
---

- Three part presentation about **Syntactic Saliency**
  - What led me to the **Search**
  - What was **Implemented**
  - What you can do to **Make a difference**



# THE SEARCH.....

---

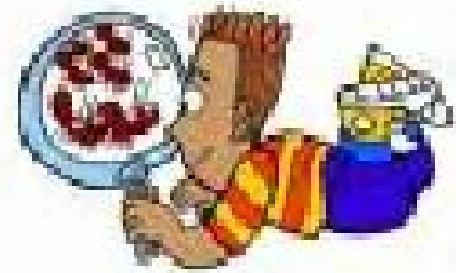


- Children who:
  - Had difficulty relaying complete messages
  - Used **telegraphic** messages
  - Relied on nonverbal tools
  - Often **regarded as less cognitively “able”**
  - **Supported by co-construction** techniques to communicate



# THE SEARCH.....

---



- Limited active participation in academics
  - Difficulty determining **academic knowledge**
  - Increased academic demands
- Written Output
  - **Limited ability** to write about what had been read, experienced, or solved (problem)
  - **Written output indicators** dictate the reading levels (MCPS Reading 3-D)

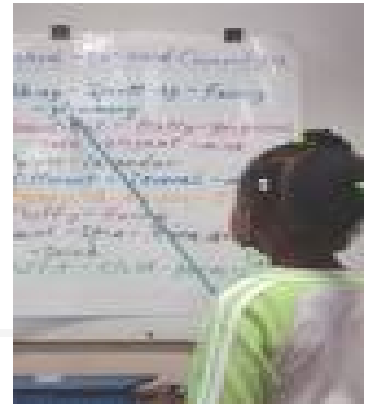
# What I believed... about WRITING



- User of AAC are required to “**write**” as they create their oral messages
- Ineffectively addressing writing needs (class/therapy)
- Difficulty with internal creation of message (inner speech)
- **Customization of literature** would help teach writing

# What I believed... about LANGUAGE

---



- Challenged to **use age appropriate structures**
- **Assessment** is critical
- **Context of usage** rather than drill and practice
- Social versus **Educational language usage**



# BELIEFS became RATIONALE

---

- The development of language skills is critical to the AAC user as it serves as the foundation for all communication: manual, gestural, written and spoken (natural or augmented speech).
- Single words and telegraphic messages can be functional for verbal communication, but written communication demands more complete messages.



# STATEMENT OF PROBLEM

---

- Research has shown that many users of AAC evidence significant difficulties in the areas of syntactical structures (Bedrosian, 1997; Lund & Light, 2003; Ronski, Sevcik, & Adamson, 1997).
- Issues related to the acquisition of morphology and syntax have not been systematically explored in AAC literature or in the development of intervention approaches (Sutton et al., 2002).



# ASYMMETRY in LANGUAGE LEARNING: Language Difference

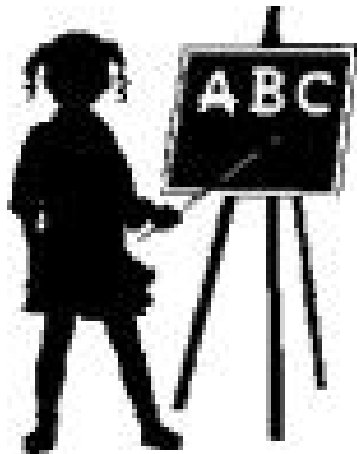
- Language comprehension skills
- Language input and output
- AAC system: **acquisition-accessibility-content**
- AAC language models and practice



# IMPLEMENTATION

## FIRST STEP: ASSESSMENT

---



- **A: ASSESS** language skills... DON'T rely on guesses or appearances
- **B: BASELINE** language sample
- **C: COLLECT** spontaneous productions about pictures, books, activities, etc.

# SECOND STEP: ANALYZE



- “A First Language: The Early Stages” by Roger W. Brown (1973)
- Stages provide a framework for understanding and **predicting normal expressive language** development
- Identify the features of **language to target**



# THIRD STEP: BEGIN in the ZONE

---

- Zone of Proximal Development
  - area **just beyond** a learner's existing level of knowledge, skill, or understanding (Vygotsky, 1978).
  - dynamic region between what an individual can *independently* perform and where *learning new skills* takes place when given assistance from an adult



# IDENTIFIED ZONES & TSS for the research

---

- Four participants – two target syntactic structures (TSS)
  - Allegro (10;6) – TSS: *-ing*, *Wh-Questions*
  - French Vogue (10;0) – TSS: *-ing*, *Wh-Questions*
  - Chaucer (7;0) – TSS: *Wh-Questions*, *-ing*
  - Arial (6;0) – TSS: *Subject-Verb-Object*, *-ing*



# FOURTH STEP: SET the ENVIRONMENT

---

- Mediated learning environment
  - to “foster children’s learning, adults must provide mediated **assistance, or intellectual and social guidance**
  - Language is learned within the context of social/cultural development = with the **aid of the experienced adult- you the teacher/therapist**

# FIFTH STEP: DEVELOP the MATERIALS

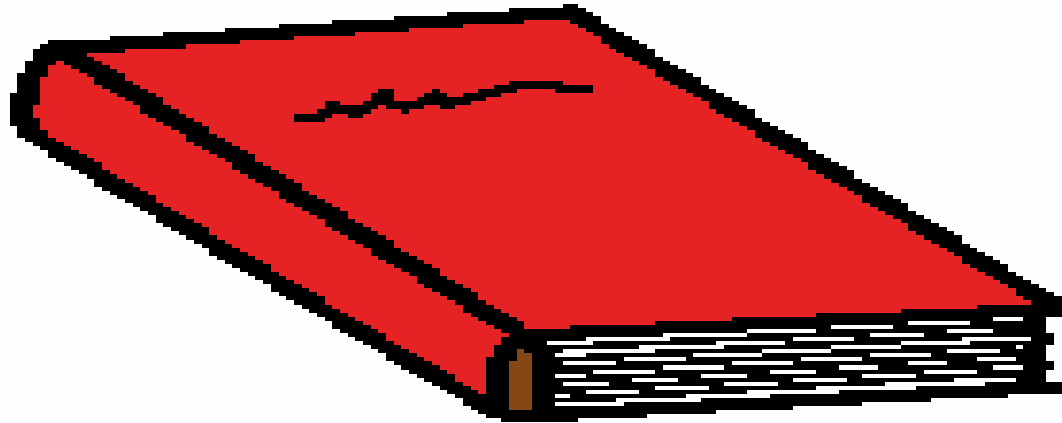


## ■ Syntactically Salient Storybooks (SS-Storybooks)

- Based on linguistic needs of participant
- Strategically **created/adapted** by the investigator/teacher/therapist to **contain target language structures**
- Maintain **context** of the story
- Set the language structure as a salient feature in the storyline

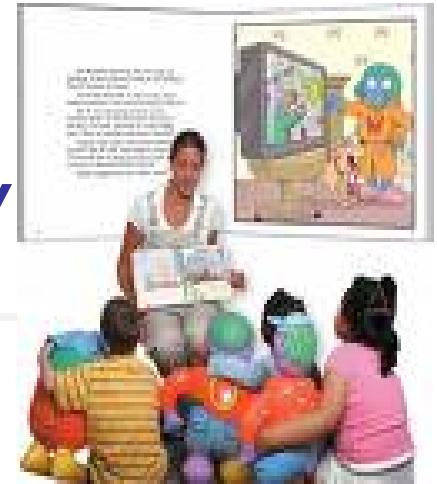
# Syntactically Salient Storybooks

---



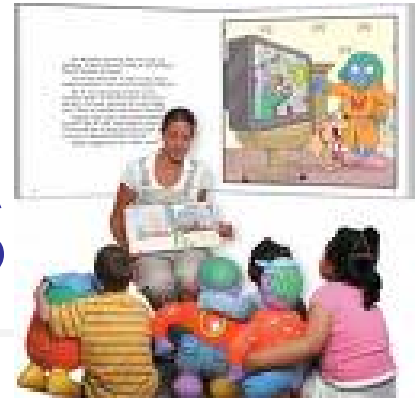


# SIXTH STEP: GET DOWN TO THERAPY



- SS-Storybooks used in the **context of interactive reading**, incorporated:
  - Talk about pictures
  - Ask questions –Predict –Infer
  - Take turns reading and formulating responses
  - Therapy 3x week - 30-45 minute sessions (this study) 17

# SUPPORT the PROCESS



- Scaffolding strategies to support learning
  - Print referencing
  - Cloze technique
  - Aided language stimulation (ALS)

# Scaffolding Strategy: Print Referencing



- Print referencing – the use of “verbal and nonverbal cues” to **draw attention** to and **interaction with print**
- Print referencing - used to **enhance the emergent language** and literacy skills of young children

# Scaffolding Strategy: Cloze Technique



- **Delete words** from passage
- Used to **highlight language structures**
- Students **insert words** to complete and **construct meaning** from the text

# Scaffolding Strategy: Aided Language Stimulation (ALS)



- ALS is a teaching strategy in which a communication partner **points to symbols on the user's communication display or creates the augmented message on the AAC system** as he or she interacts and communicates verbally with the augmented communicator.
- Simultaneously teaches expressive and receptive language.

(Goossens" , Crain, & Elder, 1992; Ronski & Sevcik, 1992)

# SEVENTH STEP: PERIODIC EVALS

- Periodic language sample probes
- Evaluate spontaneous usage
- Window on generalization of syntactic skill

What  
was  
found...

Results





# Effect of SS-SIM on the production of Be + *ing*

% Correct Spontaneous Production Be + *ing*

Baseline

Language Sample Probes

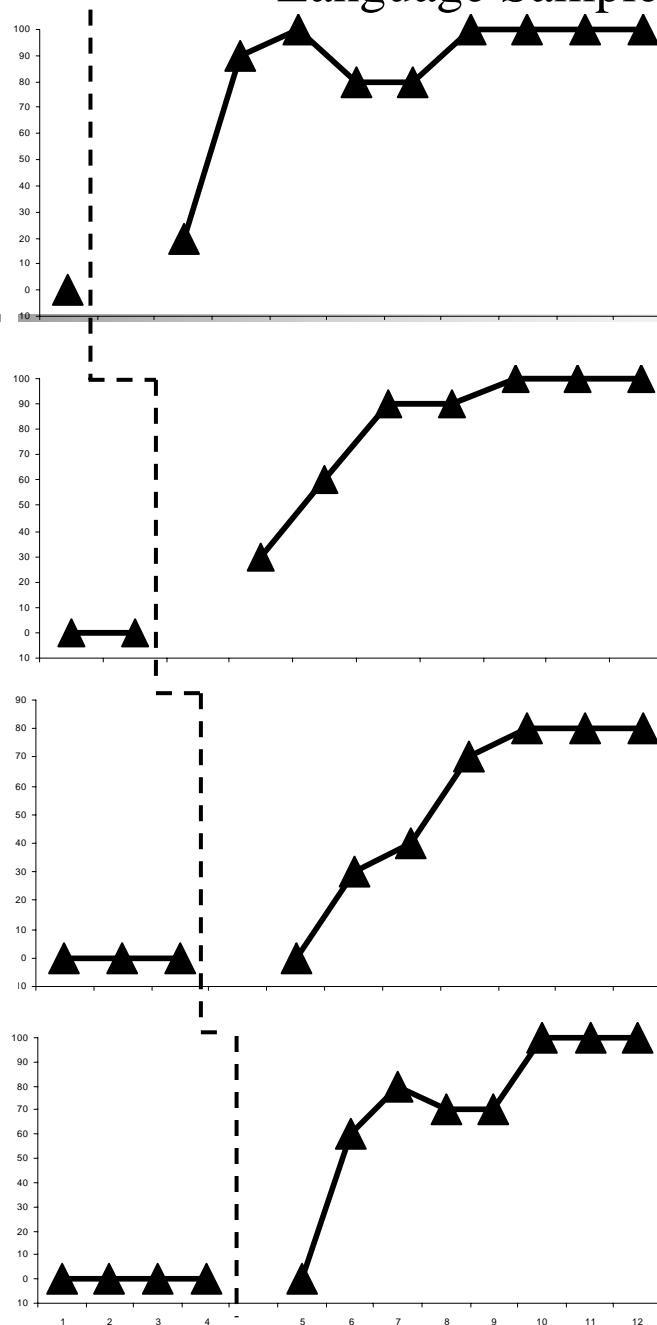
Allegro

French Vogue

Arial

Chaucer

Examples





# *-ing* Language Samples



Baseline

Final Probes

---

## ■ **Allegro**

- The boy pick flower
- The dog and cat are hug
- He is catching the butterfly
- He is petting the cat

## ■ **French Vogue**

- Friend Fall
- Horse think eat
- She is hugging dog
- He is eating apple

# *-ing* Language Samples

## Baseline

## Final Probes

### ■ Arial

- I eat
- Dog cat

- Mom is drinking water
- Girl is kissing the cat

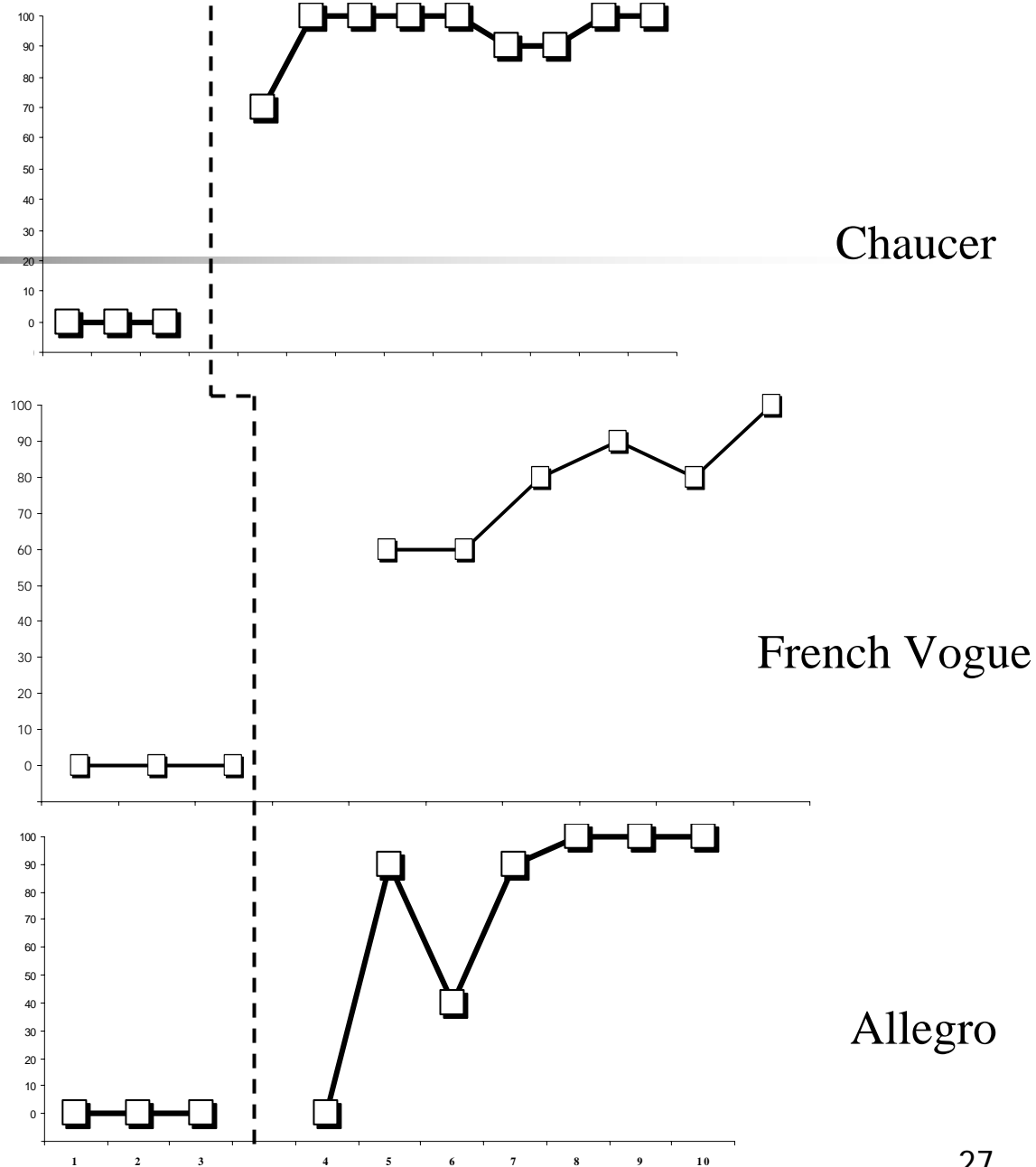
### ■ Chaucer

- The boy play the water
- I laugh movies

- He is playing basketball
- He is reading a story

# Effect of SS-SIM on the production of Wh-Questions

Baseline Language Sample Probes



# WH-Question Language Samples

## Baseline

## Final

### ■ Allegro

- Please
- Please

### ■ French Vogue

- I went there too (PP)
- It looks like fun (PP)

### ■ Chaucer

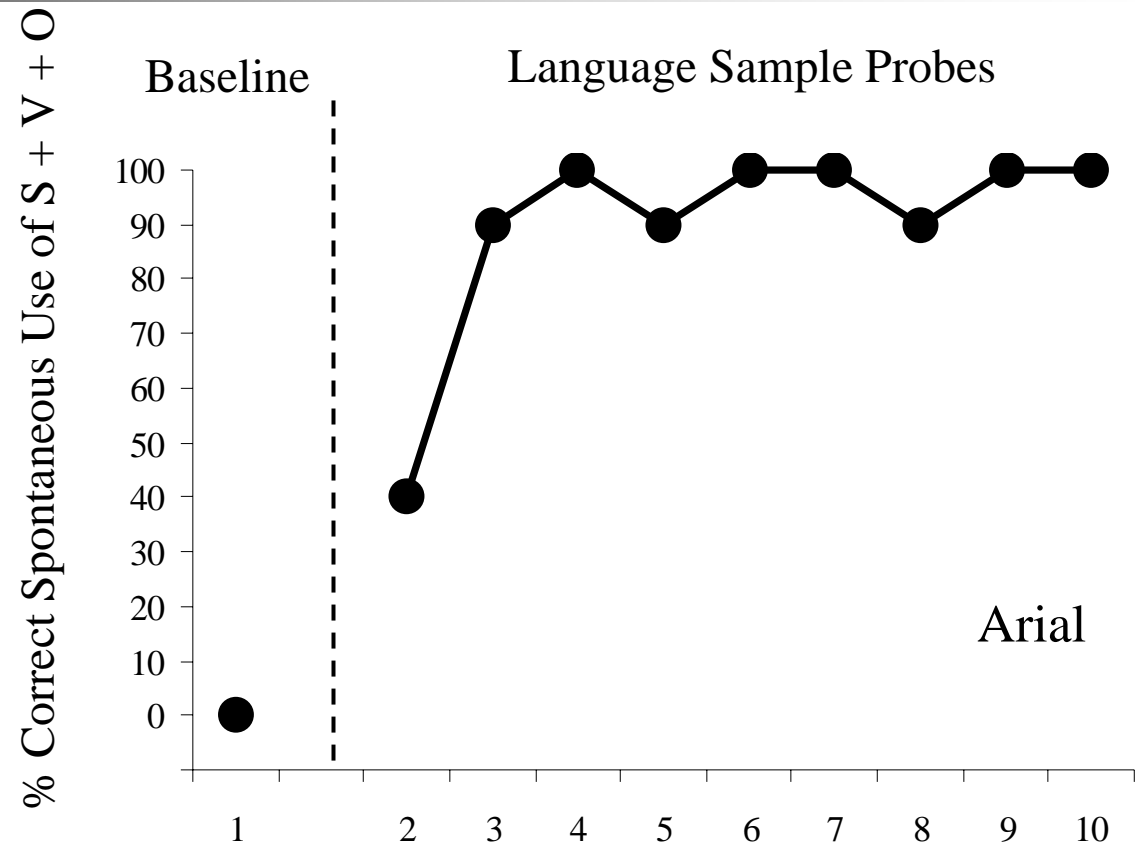
- I want play it
- I want see

- What is favorite ride
- What is doing noise

- What game
- What size

- What break it
- What eat for lunch

# Effect of SS-SIM on the production of Subject + Verb + Object





# $S + V + O$ Language Samples

## Baseline

## Final Probes

---

### ■ **Arial**

■ I swim

■ Johnny swims water

■ Walk

■ Mary jump jumprope

■ I six flags

■ Sam rides six flags

■ I flower

■ Frank carry flower



# Additional Findings

---

- **Self-Monitoring**

- Increased monitoring of productions
- Increased self-correction of error productions

- **Impact of Skill**

- Increased linguistic confidence
- Increased confidence as a communicator
- Reduced reliance on others to clarify message

# Users of AAC can use Syntactically Salient books to...

---



- Increase mean length of utterance
- Build syntactic structures
- Expand communicative intents
- Increase written output





# MAKE A DIFFERENCE...

---

- **Collaboration between SLP & Teacher**
  - Assess spontaneous language usage
    - Baseline language samples
    - Identify zone of proximal development
    - Identify syntactic structures to target



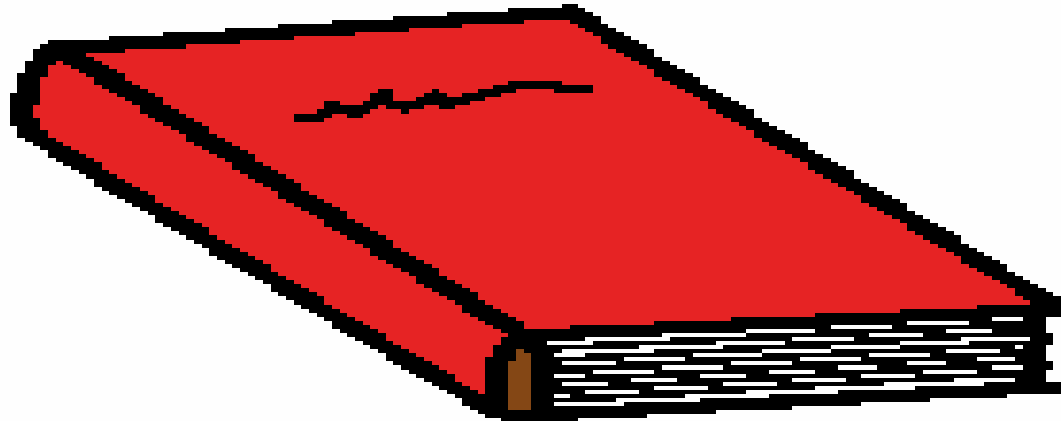
# YOU CAN ...

---

- Use literature to **support language learning**
- Maintain the **context** of a story
- Use **scaffolding** strategies
- **RE-READ** adapted books, multiple exposures allows for **MULTIPLE PRACTICE**

# STORYBOOKS YOU CAN CREATE

---





# EFFECTS on WRITING

---

- Oral speech as written language using AAC
- Direct correlation
  - Increase oral = increase written
- Not spelling skills
- Meet increased academic demands

# CONCLUSION: SS-SIM

